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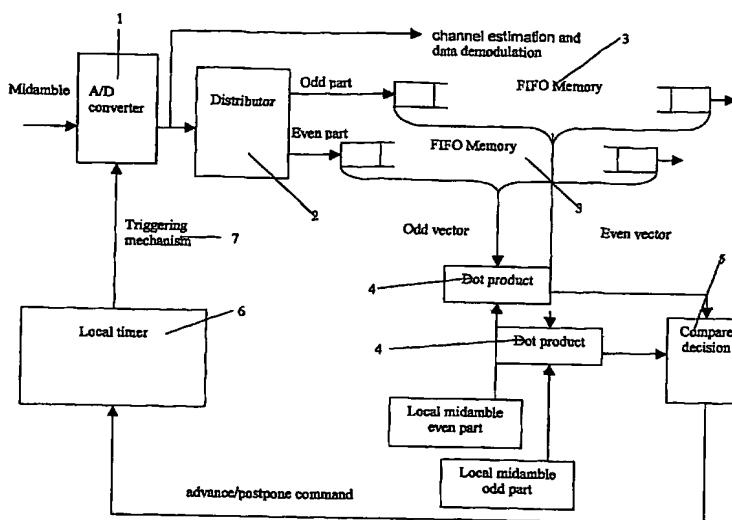
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(54) Title: METHOD AND DEVICE TO MAINTAIN SYNCHRONIZATION TRACKING IN TDD WIRELESS COMMUNICATION



(57) Abstract: A Method to maintain Synchronization Tracking in TDD Wireless Communication comprises steps as follows: a. Dividing a midamble into two parts, then detecting the first one and the second one of the midamble one by one; b: The auto-correlation property operation between the two parts mention above and the corresponding to local midamble, then two peaks are got; c. compare the two peaks amplitude; d. confirming to advance or retard local time base on the result of the compare. Compare to the normal method, the novel interlaced sampling method harm the SNR of channel estimation using midamble very slightly. By using this novel method, the sample frequency can be decreased to only one time of the chip rate of TD-SCDMA system while still maintaining the ability to track the downlink synchronization.

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